

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A method for determining an operational parameter for determining distribution data for a disposal domain parameter in a cuttings injection process at a site, comprising:
  - performing a fracturing simulation using a site specific datum to obtain a fracturing result;
  - determining a probability of creating a new fracture in a formation at the site using the fracturing result and a probability model;
  - performing a plurality of fracturing simulations using the probability and a distribution associated with the probability to obtain disposal domain information; and
  - generating the operational parameter for the cuttings injections process at the site using the disposal domain information~~extracting the distribution data for the disposal domain parameter from the disposal domain information.~~
2. (Currently Amended) The method of claim 1, further comprising:
  - performing a risk assessment analysis for the site using the domain disposal information distribution data for the disposal domain parameter to obtain a risk assessment.
3. (Currently Amended) The method of claim 2, further comprising:
  - determining whether the domain disposal information ~~disposal domain parameter~~ satisfies a criterion using the risk assessment.
4. (Original) The method of claim 3, wherein the criterion is at least one selected from the group consisting of a governmental regulation and a cost criteria.
5. (Cancelled)
6. (Cancelled)

7. (Currently Amended) The method of claim 1, ~~further comprising:~~ wherein generating [[an]] the operational parameter comprises using [[the]] data distribution for [[the]] a disposal domain parameter extracted from the disposal domain information.
8. (Currently Amended) The method of claim 1, further comprising:  
extracting sensitivity study information associated with [[the]] a disposal domain parameter extracted from the disposal domain information.
9. (Currently Amended) The method of claim 1, wherein the disposal domain information comprises a disposal domain parameter and where the disposal domain parameter comprises at least one selected from the group consisting of disposal zone selection, fracturing length, number of disposal wells, injection pressure increase, and disposal well capacity.
10. (Original) The method of claim 1, wherein the probability model comprises a probability-based decision tree comprising at least one probability value.
11. (Original) The method of claim 10, wherein using the probability-based decision tree comprises:  
using the fracturing result and a formation property to:  
determine the probability of creating the new fracture if the fracture is not closed;  
determine the probability of creating the new fracture if the fracture is closed and no screen-out occurs prior to closure; and  
determine the probability of creating the new fracture if the fracture is closed and screen-out occurs prior to closure.
12. (Original) The method of claim 10, wherein the at least one probability value is associated with an injection zone.
13. (Original) The method of claim 10, wherein the probability value is obtained from a database of field data.

14. (Cancelled)

15. (Cancelled)

16. (Original) The method of claim 1, wherein performing the plurality of fracturing simulations comprises using a Monte Carlo simulation methodology.

17. (Cancelled)

18. (Original) A system for ~~determining an operational parameter for distribution data for a disposal domain parameter in~~ a cuttings injection process at a site, comprising:

a probability component configured to obtain a probability of creating a new fracture in a formation at the site using a fracturing result and a probability model, wherein the fracturing result is obtained using a site specific datum;

an integration module configured to generate at least one input parameter for a fracturing simulation using the probability and further configured to generate the operational parameter for the cuttings injection process at the site using disposal domain information ~~extract distribution data associated with at least one disposal domain parameter from the disposal domain information~~; and

a fracturing simulation component configured to perform the fracturing simulation to generate the disposal domain information using the at least one input parameter.

19. (Original) The system of claim 18, further comprising:

a data acquisition component configured to obtain data associated with the at least one input parameter.

20. (Original) The system of claim 18, further comprising:

a knowledge database component configured to provide the probability model.

21. (Currently Amended) The system of claim 18, wherein the disposal domain information comprises at least one disposal domain operation parameter and wherein the at least one disposal domain parameter comprises at least one selected from the group consisting of disposal

domain selection, fracturing length, number of disposal wells, injection pressure increase, and disposal well capacity.

22. (Original) The system of claim 18, wherein the integration component is further configured to quantify the impact of geological uncertainties and CRI operational uncertainties on cuttings re-injection quality assurance using the disposal domain information.
23. (Original) The system of claim 18, wherein the probability model comprises a probability-based decision tree comprising the probability value.
24. (Original) The system of claim 23, wherein the probability-based decision tree comprises:
  - using the fracturing result and a formation property to:
    - determine the probability of creating the new fracture if the fracture is not closed;
    - determine the probability of creating the new fracture if the fracture is closed and no screen-out occurs prior to closure; and
    - determine the probability of creating the new fracture if the fracture is closed and screen-out occurs prior to closure.
25. (Original) The system of claim 18, wherein the probability value is associated with an injection zone.
26. (Cancelled)
27. (Cancelled)
28. (Cancelled)
29. (Cancelled)
30. (Original) The system of claim 18, wherein the integration component is further configured to perform a risk assessment analysis for the site using the distribution data for the disposal domain parameter to obtain a risk assessment.

31. (Original) The system of claim 30, wherein the integration component is further configured to determine whether the disposal domain parameter satisfies a criterion using the risk assessment.
32. (Original) The system of claim 31, wherein the criterion is at least one selected from the group consisting of a governmental regulation and a cost criteria.
33. (Currently Amended) The system of claim 18, wherein the integration component is further configured to generate [[an]] the operational parameter using [[the]] data distribution for [[the]] at least one disposal domain parameter obtained from the disposal domain information.
34. (Currently Amended) The system of claim 18, wherein the integration component is further configured to extract sensitivity study information associated with [[the]] at least one disposal domain parameter from the disposal domain information.
35. (New) The method of claim 1, further comprising:  
generating a recommendation for a user using the disposal domain information, wherein the recommendation defines an additional site specific datum to obtain during the cutting injection process at the site.
36. (New) The system of claim 1, wherein the integration module is further configured to generate a recommendation for a user using the disposal domain information, wherein the recommendation defines an additional site specific datum to obtain during the cutting injection process at the site.
37. (New) The method of claim 1, wherein the operational parameter is one selected from a group consisting of batch size, a time between injections, a particle size, a slurry rheology requirement, and a volume of cuttings to inject into a formation at the site.
38. (New) The system of claim 18, wherein the operational parameter is one selected from a group consisting of batch size, a time between injections, a particle size, a slurry rheology requirement, and a volume of cuttings to inject into a formation at the site.

39. (New) A computer system for generating an operational parameter for a cuttings injection process at a site, comprising:
- a processor; and
  - a memory comprising instructions, which when executed by the processor cause the computer to:
    - perform a fracturing simulation using a site specific datum to obtain a fracturing result;
    - determine a probability of creating a new fracture in a formation at the site using the fracturing result and a probability model;
    - perform a plurality of fracturing simulations using the probability and a distribution associated with the probability to obtain disposal domain information; and
    - generate the operational parameter the cuttings injections process at the site using the disposal domain information.
40. (New) The computer system of claim 39, wherein the memory further comprises instructions, which when executed, cause the computer system to:
- perform a risk assessment analysis for the site using the domain disposal information to obtain a risk assessment.
41. (New) The computer system of claim 40, wherein the memory further comprises instructions, which when executed, cause the computer system to:
- determine whether the domain disposal information satisfies a criterion using the risk assessment.
42. (New) The computer system of claim 41, wherein the criterion is at least one selected from the group consisting of a governmental regulation and a cost criteria.
43. (New) The computer system of claim 39, wherein the memory further comprises instructions, which when executed, cause the computer system to:
- generate a recommendation for a user using the disposal domain information, wherein the recommendation defines an additional site specific datum to obtain during the cutting injection process at the site.

44. (New) The computer system of claim 39, wherein the operational parameter is one selected from a group consisting of batch size, a time between injections, a particle size, a slurry rheology requirement, and a volume of cuttings to inject into a formation at the site.
45. (New) The computer system of claim 39, wherein the disposal domain information comprises at least one disposal domain operation parameter and wherein the at least one disposal domain parameter comprises at least one selected from the group consisting of disposal domain selection, fracturing length, number of disposal wells, injection pressure increase, and disposal well capacity.